

### ABSTRACT

A system is provided for reflow soldering a part that includes: replacing air around an unsoldered part with a first inert gas; removing the first inert gas to form a vacuum around the unsoldered part; vacuum reflow soldering the unsoldered part to form a reflow-soldered part; providing a second inert gas to fill the vacuum around the reflow-soldered part; and  
5 replacing the second inert gas with air around the reflow-soldered part.